

The Heterodyne

Newsletter of the West Valley Amateur Radio Association

April Meeting via Zoom

***Myth #6: Top Band
Requires Huge Antennas
Jim Peterson, K6EI***

***Wednesday, April 13
Meeting Starts at 7pm
Visitors Are Welcome!***

***Due to the corona virus,
there will not be a meeting
at American Red Cross.***

WVARA Repeaters (W6PIY)		
Band	Frequency	PL
6 Meters	52.580- MHz	151.4 Hz
2 Meters	147.39+ MHz	151.4 Hz
1.25 Meters	223.96- MHz	156.7 Hz
0.70 Meter	441.35+ MHz	88.5 Hz
0.23 Meter	1286.2- MHz	100 Hz

WVARA's club net is on the W6PIY repeaters each Tuesday at 8:30 pm. All repeaters are linked together during the net. The net control script can be found at www.wvara.org in the "On The Air" dropdown.

The next monthly WVARA meeting will be at 7pm on Wednesday, April 13, via Zoom. Zoom instructions have been sent via the WVARA reflector and can likewise be obtained by contacting K6EI — his email is available via QRZ. Hope to see you there! Jim, K6EI, WVARA Vice President



Monthly Presentation

Our April 13 presentation will be all about Top Band — the 160 meters band. We'll discuss the features that make this band unique, including several myths about this mysterious. We'll also cover ideas for how the average city dweller can install an effective antenna on this band.

Our speaker is none other than Jim Peterson, K6EI, WVARA's Vice President. Jim holds the Pacific Division's all-time top score in the

ARRL 160 contest (QRP category) and has been active on this band for over three decades. He has an MSEE focused on electromagnetic and signal processing from Ohio State and spent 38 years at ESL / TRW / Northrop Grumman.

Upcoming Meetings and Events		
April 9	Electronic Flea Market hosted by WVARA	
April 13	Meeting Topic: 160 meters	Speaker: Jim Peterson, K6EI
May 11	Meeting Topic: All Things Field Day	Speaker: Jim Peterson, K6EI
June 11	Meeting Topic: Fun with Nano VNAs	Speaker: Stan Dye, KC7ZXE
June 24-26	Field Day Weekend	

Welcome to our new member!
Reynaldo Verdejo, KM6MCU



An Old Timer's Introduction to Parks-On-The-Air

By Jim Peterson, K6EI

I enjoy chasing DX from my home station, and occasionally have daydreamed about what it would be like to launch a DXpedition to a rare DXCC. While actually going on such an adventure is unlikely, I have found Parks-On-The-Air to be a great opportunity for me to share in the fun of being the rare DX in a small way.

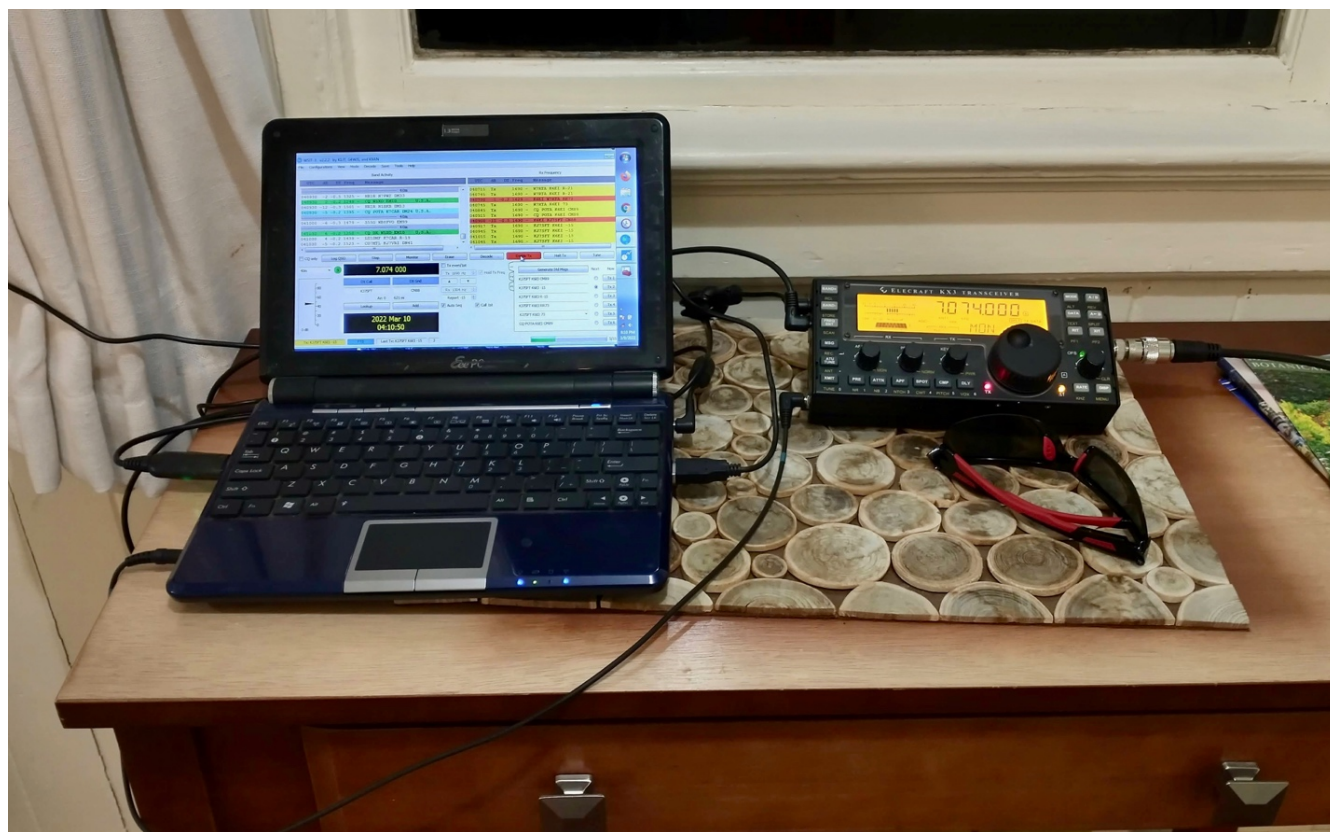


My sister and her husband recently invited my wife and me to spend a few days with them at Point Cabrillo Light Station State Park near Mendocino. They had even reserved the lighthouse keeper's cottage for the four of us to stay in. Naturally, I made preparations to bring a small HF transceiver to use during the occasional moments when the four of us wouldn't be hiking or exploring the local towns.

Then it dawned on me that our three-night stay at this state park would make a perfect opportunity to participate in POTA – Parks On The Air. The goal of POTA is to encourage amateur-radio operators who enjoy the outdoors to activate portable operations from local, state, and national parks. This promotes the role of amateur radio in emergency awareness.

The first step was for me to create an account with the POTA organization on their website (<https://pota.app/#/signup>). I then looked up the activation code for my destination (K-3536 for the case of Point Cabrillo) and scheduled my POTA expedition on the POTA activation page (<https://pota.app/#/activations>). By publicizing the dates, bands, and modes that I planned to use during my stay, the POTA website made it possible for hundreds of hams to become aware of my site activation.

Radio would be a secondary activity during our stay, and so I chose to operate FT8. This mode allowed me the flexibility to socialize with my fellow guests while periodically making a few QSOs on the side.



My portable station was simple – an Elecraft KX3 capable of about 10 watts and an old laptop that supported WSJT/FT8.

In terms of antennas, I needed something that would be quick and simple to install and would be reasonably stealthy so as to not draw unfavorable attention from the park's staff. I brought along a pair of simple wire antennas to try out – an end fed halfwave (EFHW) from MyAntennas.com that covered 40/20/15/20, and an off-center fed dipole from Buckmaster that covered 80/40/20/17/12/10. The POTA activation would give me a great opportunity to try out both of them.

We arrived at the state park in the late afternoon. After unpacking and getting settled, I had about half an hour of daylight remaining in which to deploy an antenna. The EFHW was the logical choice, since it could be suspended from a tree near our cottage in a few minutes with minimal effort.



A window feed-through jumper (Comet CC-50M) was handy for routing the antenna's feedline into the cottage

Being at a remote location on the coast had its advantages. On receive, the noise level was incredibly low (not a surprise given that we were far away from any power lines) and I was pleased to see that the end-fed antenna had an excellent (1:1) SWR on 10, 15, 20 and 40 meters. I made a half dozen contacts that evening and another batch the next morning – getting as far as Guam and Japan on 40 meters with my mighty 10 watts.

After spending a day hiking and exploring, I had an hour in the late afternoon to replace the EFHW with my off-center fed dipole. I suspended the feedpoint for the dipole our cottage's second-floor window and extended the two legs toward nearby trees. The dipole, similar to the end-fed antenna, was located behind the cottage – away from the nearby walking trails – and had a relatively low profile. The park ranger that passed by my location didn't seem to notice or care that either antenna was there.



At Winter Field Day I had encountered significant receive noise when using a Buckmaster off-center fed multi band dipole. It turns out this antenna uses a voltage balun instead of a current balun. Voltage baluns try to force the output terminals to equal voltages and can sometimes introduce phase shift between each output terminal and ground. (Voltage baluns are notorious for introducing common-mode current on the outer surface of the coax's braid which can cause the feedline to pick up local electrical noise.) As a result, I always add an external 1:1 current balun like the one shown above at the feedpoint whenever using this antenna.



The feedpoint for the off-center fed dipole was suspended from a second floor window.

The off-center fed dipole was an excellent performer on 40, 20, 17, 12 and 10 meters. The SWR on 80 meters was somewhat higher (around 2.5:1) but still enabled me to make plenty of local contacts on that band including a few late night contacts to Japan.



If you look closely, you can see the two legs of the dipole extending from our cottage.



Even though I was only active on the air off-and-on for a few minutes at a time during our three day stay, I managed to complete 161 POTA contacts using FT8. Bottom line: operating POTA during your next vacation can be a real hoot!

WVARA Net Check-Ins (W6PIY)

Tuesdays at 8:30 PM

Callsign	Name	03/08/22	03/15/22	03/22/22	03/29/22	04/05/22
Total		14	18	20	18	14
AA6RB	Roy			X		
AF6AE	Bill	X	X	X	X	X
K6EI	Jim		X	X	X	
K6VP	Dan		X	X		
KC6ZKT	Steve	X	X		X	X
KC7XE	Dan	X				
KC7XE	Stan		X		X	
KE6JAC	Al		X		X	X
KE6VKR	David				X	
KF6EMB	Svend	X	X	X		X
KG7KGE	Benjamin		X			
KK6HLN	Paul					X
KK6HPF	Ross	X	X	X	X	X
KK6VF	Kevin	NET	NET	NET	NET	NET
KM6UIM	Michael			X		
KN6FGH	Tim	X	X	X	X	X
KN6MTI	Jim			X		
KN6OGS	Ryan			X		
KN6QEM	Trajan				X	
KN6QEN	Luke				X	
KN6QEO	Veloria				X	
KX6B	Dick	X	X	X	X	X
N6BTU	Wayne	X		X	X	
W1MVY	Scott			X		
W6BG	Max	X				
W6IA	Mark	X	X	X	X	X
W6PK	Phil	X	X		X	
W8RJL	Ron		X	X	X	X
WB6JHI	Steve		X	X		X
WB6JMR	Mark			X		
WB6KHP	Dave	X	X	X	X	X
WD9DD	Russ			X		
WR3K	Greg	X	X			
WR6Z	Dave					X

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